

Harvard-M.I.T. Algebraic Geometry Seminar

CHARACTERIZATION OF ABELIAN VARIETIES

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Abstract:

In this talk we will illustrate the following results conjectured by Kollár:

Theorem 1: Let X be a smooth complex projective variety with $P_2(X) = 1$. Then X maps surjectively to its Albanese variety (which is a complex projective torus of dimension $h^0(\Omega_X^1)$). In particular $\dim(X) \geq h^0(\Omega_X^1)$.

Theorem 2: Let X be a smooth complex projective variety with $P_2(X) = 1$ and $\dim(X) = h^0(\Omega_X^1)$. Then X is birationally equivalent to a complex torus.

(Both theorems are joint work with A. J. Chen)

Tuesday, November 12

3:00 p.m.

Harvard Rm 507

<http://www-math.mit.edu/~jstarr/02sem/>.